RESEARCH MANAGEMENT DIVISION

PUBLICATIONS

JULY 1984

RESEARCH MANAGEMENT DIVISION
Alberta Environment

RESEARCH MANAGEMENT DIVISION PUBLICATIONS

There are five series of reports published by the Research Management Division (RMD).

1. AOSERP WIDE DISTRIBUTION REPORTS

AOSERP reports have been published since the inception of the Alberta Oil Sands Environmental Research Program (AOSERP) in 1975. Although the program is now part of the Research Management Division, AOSERP reports continue to be published as a distinct series within the division. Wide distribution indicates that 200 copies of the report were printed.

2. RMD WIDE DISTRIBUTION REPORTS

RMD reports have been published since 1980. They constitute a separate series of reports within the division. The difference between AOSERP and RMD wide distribution reports lies in the geographic area of relevance. If the area studied is within the Alberta oil sands then the report is published in the AOSERP series; all other areas of the province come under the RMD designation. Reports published prior to 1982 do not always have this clear-cut differentiation. Again, wide distribution indicates that 200 copies of the report were printed.

3. LIMITED DISTRIBUTION REPORTS

These are generally interim reports or reports that, for other reasons, do not necessitate wide distribution. Twenty copies are printed and distributed to select libraries. RMD and AOSERP reports are both filed as Limited Distribution Reports.

4. OPEN FILE REPORTS

Open File reports are, for various reasons, not considered appropriate for wide or limited distribution. They remain unedited; ten copies are printed and distributed to select libraries and to a quick-printing house in Edmonton. RMD and AOSERP reports are both filed as Open File Reports.

5. RESEARCH SECRETARIAT REPORTS

These reports ceased to be published when the Research Management Division was formed in 1980. Some Research Secretariat reports are still available for distribution, but the series is essentially non-existent.

COLOUR CODES

The five series of reports are listed separately and colour coded.

Series	Colour
AOSERP Wide Distribution Reports	light pink
RMD Wide Distribution Reports	light blue
Limited Distribution Reports	light yellow
Open File Distribution Reports	light green
Research Secretariat Distribution Reports	dark blue

REPORT AVAILABILITY

As indicated in the foregoing general descriptions of publications, reports are produced in limited quantities. As a result, certain reports are out of print and are no longer available from the Research Management Division. Reports which are out of print are marked with an asterisk (*) in the report listings which follow.

To provide wider access to RMD publications and to ensure that out-of-print reports are accessible, the Publications Office has selected a number of alternate sources for publications. These locations are given at the beginning of the listings for each report series. Please keep in mind that Open File Reports are available only from the libraries or from the quick-printing firm noted in the introduction to the Open File series.

Note that several of the libraries which hold RMD publications are connected with the inter-library loan system. Your library can provide you with information on obtaining reports through inter-library loan.

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Researchers may request reports which are in print from:

Research Management Division
Publications Office
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10405 - Jasper Avenue
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There are no charges for Research Management Division reports.

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NEW PUBLICATIONS BULLETIN

The Research Management Division publishes reports on a continuing basis. New reports are announced in a New Publications Bulletin which is issued monthly.

Except in special cases, RMD no longer automatically mails newly-released publications. Instead, such reports must be ordered from the Publications Office.

To receive the bulletin and, therefore, be notified of new reports please detach the bottom portion of this page and mail it to:

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T2N 1N4

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Alberta Legislative Assembly
Legislative Library
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Edmonton, Alberta
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AOSERP Wide Distribution Reports can be purchased on microfiche or paper from the Microlog: Canadian Government Publications index service provided by:

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The following list gives Microlog order numbers for most reports in this series. These numbers must be quoted when ordering from Micromedia.

AOSERP WIDE DISTRIBUTION REPORTS

Report	Project	Microlog Number	References
1	PM	76-0983	Alberta Oil Sands Environmental Research Program. 1976. First annual report, 1975. Alberta Oil Sands Environmental Research Program. AOSERP Report 1. 58 pp.
2	AF 4.1.1	77-0149	Kristensen, J., B.S. Ott, and A.D. Sekerak. 1976. Walleye and goldeye fisheries investigations in the Peace-Athabasca Delta--1975. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Ltd., Environmental Research Associates. AOSERP Report 2. 103 pp.
3	HE 1.1.1	77-0149	McVey, W.W. 1976. Structure of a traditional baseline data system. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Population Research Laboratory. AOSERP Report 3. 26 + 266 pp.
4	VE 2.2	77-0555	Stringer, P.W. 1976. A preliminary vegetation survey of the Alberta Oil Sands Environmental Research Program study area. Prep. for the Alberta Oil Sands Environmental Research Program by Intraverda Plant Systems Ltd. AOSERP Report 4. 108 pp.
* 5	HY 3.1	77-0242	Strosher, M.T. and E. Peake. 1976. The evaluation of wastewaters from an oil sand extraction plant. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Environmental Sciences Centre (Kananaskis). AOSERP Report 5. 103 pp.
* 6	PM	77-0555	Patterson, R. and A.M. Lansdown. 1976. Housing for the north--the stackwall system; construction report--Mildred Lake tank and pump house. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Manitoba, Faculty of Engineering, Northern Housing Committee. AOSERP Report 6. 36 pp.
7	AF 3.1.1	77-0149	Jantzie, T.D. 1977. A synopsis of the physical and biological limnology and fishery programs within the Alberta oil sands area. Prep. for the Alberta Oil Sands

* Indicates out-of-print report.

			Environmental Research Program by Renewable Resources Consulting Services Ltd. AOSERP Report 7. 73 pp.
* 8	AF 1.2.1	77-0554	Machniak, K. 1977. The impact of saline waters upon freshwater biota (a literature review and bibliography). Prep. for the Alberta Oil Sands Environmental Research Program by Aquatic Environments Ltd. AOSERP Report 8. 258 pp.
9	ME 3.3	77-0555	Croft, B.R., A. Lamb, and R.N. Dawson. 1977. A preliminary investigation into the magnitude of fog occurrence and associated problems in the oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Stanley Associates Engineering Ltd. AOSERP Report 9. 87 pp.
10	HE 2.1	80-2755	Millar, J.F.V. 1977. Development of a research design related to archaeological studies in the Athabasca Oil Sands area. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Saskatchewan. AOSERP Report 10. 69 pp.
11	AF 2.2.1	77-0555	Flannagan, J.F. 1977. Life cycles of some common aquatic insects of the Athabasca River, Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 11. 20 pp.
* 12	ME 1.7	77-0481	Mercer, J.M. and R.B. Charlton. 1977. Very high resolution meteorological satellite study of oil sands weather: "a feasibility study". Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Geography. AOSERP Report 12. 44 pp.
13	ME 2.3.1	77-0553	Davison, D.S., C.J. Fortems, and K.L. Grandia. 1977. Plume dispersion measurements from an oil sands extraction plant, March 1976. Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 13. 195 pp.
14			No report published.
* 15	ME 3.4	80-2759	Denison, P.J. 1977. A climatology of low-level air trajectories in the Alberta oil sands area. Prep. for the Alberta Oil

			Sands Environmental Research Program by Acres Consulting Services. AOSERP Report 15. 118 pp.
16	ME 1.6	80-2760	Barge, B.L., R.G. Humphries, and S.L. Olson. 1977. The feasibility of a weather radar near Fort McMurray, Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Atmospheric Sciences Division. AOSERP Report 16. 72 pp.
17	AF 2.1.1	80-2761	Lutz, A. and M. Hendzel. 1977. A survey of baseline levels of contaminants in aquatic biota of the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 17. 51 pp.
18	HY 1.1	80-2148	Loeppky, K.D. and M.O. Spitzer. 1977. Interim compilation of stream gauging data to December 1976 for the Alberta Oil Sands Environmental Research Program. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Water Survey Branch. AOSERP Report 18. 257 pp.
* 19	ME 4.1	80-2762	Walmsley, J.L. and D.L. Bagg. 1977. Calculations of annual averaged sulphur dioxide concentrations at ground level in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. AOSERP Report 19. 40 pp.
* 20	HY 3.1.1	80-2149	Strosher, M.T. and E. Peake. 1978. Characterization of organic constituents in waters and wastewaters of the Athabasca Oil Sands mining area. Prep. for the Alberta Oil Sands Environmental Program by the University of Calgary, Environmental Sciences Centre (Kananaskis). AOSERP Report 20. 71 pp.
21	PM	78-0045	Alberta Oil Sands Environmental Research Program. 1977. Second Annual Report, 1976-77. Alberta Oil Sands Environmental Research Program. AOSERP Report 21. 62 pp.
* 22	PM	80-0351	Smith, S.B., ed. 1979. Alberta Oil Sands Environmental Research Program interim report covering the period April 1975 to

November 1978. Prep. by A.S. Mann, R.A. Hursey, R.T. Seidner, and B. Kasinska-Banas. AOSERP Report 22.

23	AF 1.1.2	79-5438	Lake, W. and W. Rogers. 1979. Acute lethality of mine depressurization water to trout-perch and rainbow trout: Volume I. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Water Control Branch. AOSERP Report 23. 44 pp.
24	ME 1.5.2 ME 3.5.1	79-5605	Fanaki, F., R. Mickle, M. Lusis, J. Kovalick, J. Markes, F. Froude, J. Arnold, A. Gallant, S. Melnichuk, D. Brymer, A. Gaudenzi, A. Moser, and D. Bagg. 1979. Air system winter field study in the AOSERP study area, February 1977. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Atmospheric Environment Service. AOSERP Report 24. 182 pp.
25	ME 3.5.1	80-2763	Bottenheim, J.W. and O.P. Strausz. 1977. Review of pollutant transformation processes relevant to the Alberta oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Hydrocarbon Research Centre. AOSERP Report 25. 166 pp.
* 26	AF 4.5.1	80-0777	Bond, W.A. and K. Machniak. 1977. Interim report on an intensive study of the fish fauna of the Muskeg River watershed of northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Department of Fisheries. AOSERP Report 26. 137 pp.
* 27	ME 1.5.1	80-2150	Fanaki, F., compiler. 1978. Meteorology and air quality winter field study in the AOSERP study area, March 1976. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Atmospheric Environment Service. AOSERP Report 27. 249 pp.
* 28	VE 2.1 LS 2.1	80-2151	Turchenek, L.W. and J.D. Lindsay. 1978. Interim report on a soils inventory in the Athabasca oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Soils Division. AOSERP Report 28. 100 pp.

29	ME 2.2	78-0883	Shelfentook, W. 1978. An inventory system for atmospheric emissions in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by SNC Tottrup Services Ltd. AOSERP Report 29. 58 pp.
* 30	ME 2.1	78-0883	Strosher, M.M. 1978. Ambient air quality in the AOSERP study area, 1977. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Pollution Control Division. AOSERP Report 30. 74 pp.
* 31	VE 2.3 LS 2.3	80-2152	Thompson, M.D., M.C. Wride, and M.E. Kirby. 1978. Ecological habitat mapping of the AOSERP study area: Phase I. Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 31. 176 pp.
32	PM	80-0286	Alberta Oil Sands Environmental Research Program. 1979. Third Annual Report, 1977-78. Alberta Oil Sands Environmental Research Program. AOSERP Report 32. 114 pp.
* 33	TF 1.2	79-0596	Nowlin, R.A. 1978. Relationships between habitats, forages, and carrying capacity of moose range in northern Alberta. Part I: moose preferences for habitat strata and forages. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Recreation, Parks and Wildlife, Fish and Wildlife Division. AOSERP Report 33. 63 pp.
34	HY 2.4	80-2153	Allan, R. and T. Jackson. 1978. Heavy metals in bottom sediments of the mainstem Athabasca River system in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 34. 72 pp.
* 35	AF 4.9.1	80-2154	Griffiths, W.H. and B.D. Walton. 1978. The effects of sedimentation on the aquatic biota. Prep. for the Alberta Oil Sands Environmental Research Program by Renewable Resources Consulting Services Ltd. AOSERP Report 35. 86 pp.
36	AF 4.8.1	79-0956	Jones, M.L., G.J. Mann, and P.J. McCart. 1978. Fall fisheries investigations in the Athabasca and Clearwater rivers upstream of Fort McMurray: Volume 1. Prep. for the

			Alberta Oil Sands Environmental Research Program by Aquatic Environments Ltd. AOSERP Report 36. 71 pp.
37	HE 2.2.2	80-2155	Van Dyke, E.W. and C. Loberg. 1978. Community studies: Fort McMuray, Anzac, Fort MacKay. Prep. for the Alberta Oil Sands Environmental Research Program by Applied Research Associates Ltd. AOSERP Report 37. 195 pp.
* 38	VE 7.1.1	80-2156	Green, J.E. 1979. Techniques for the control of small mammal damage to plants: a review. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Ltd., Environmental Research Associates. AOSERP Report 38. 111 pp.
* 39	ME 1.0	79-5330	Longley, R.W. and B. Janz. 1979. The climatology of the Alberta Oil Sands Environmental Research Program study area. Prep. for the Alberta Oil Sands Environmental Research program by Fisheries and Environment Canada, Atmospheric Environment Service. AOSERP Report 39. 102 pp.
40	WS 3.3	79-5906	Beltaos, S. 1979. Mixing characteristics of the Athabasca River below Fort McMurray--winter conditions. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Transportation and Surface Water Engineering Division. AOSERP Report 40. 110 pp.
41	AF 3.5.1	80-2157	Sprague, J.B., D.A. Holdway, and D. Stendahl. 1978. Acute and chronic toxicity of vanadium to fish. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Guelph. AOSERP Report 41. 92 pp.
42	TF 1.1.4	79-0598	Todd, A. 1978. Analysis of fur production records for registered traplines in the AOSERP study area, 1970-75. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Recreation, Parks, and Wildlife. AOSERP Report 42. 17 pp.
43	TF 6.1	79-0597	Phillips, W., D. DePape, and L. Ewanyk. 1979. A socioeconomic evaluation of the recreational use of fish and wildlife resources in Alberta, with particular reference to the AOSERP study area. Volume 1:

summary and conclusions. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Rural Economy. AOSERP Report 43. 116 pp.

44 VE 3.1 80-2158 Malhotra, S.S. and P.A. Addison. 1979. Interim report on symptomology and threshold levels of air pollutant injury to vegetation, 1975 to 1978. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Forestry Service, Northern Forest Research Centre. AOSERP Report 44. 13 pp.

45 VE 3.3 80-2159 Malhotra, S.S. 1979. Interim report on physiclogical and mechanisms of air-borne pollutant injury to vegetation, 1975 to 1978. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Forestry Service, Northern Forest Research Centre. AOSERP Report 45. 38 pp.

46 VE 3.4 80-2160 Addison, P.A. and J. Baker. 1979. Interim report on ecological benchmarking and biomonitoring for detection of air-borne pollutant effects on vegetation and soils, 1975 to 1978. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Forestry Service, Northern Forest Research Centre. AOSERP Report 46. 40 pp.

47 TF 1.1.1 79-5443 Cook, R.D. and J.O. Jacobson. 1979. A visibility bias model for aerial surveys of moose on the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Interdisciplinary Systems Ltd. AOSERP Report 47. 28 pp.

48 HG 1.1 79-5439 Schwartz, F.W. 1979. Interim report on a hydrogeological investigation of the Muskeg River basin, Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Geology. AOSERP Report 48. 104 pp.

49 WS 1.3.3 80-0772 Hartland-Rowe, R.C.B., R.W. Davies, M. McElhone, and R. Crowther. 1979. The ecology of macrobenthic invertebrate communities in Hartley Crek, northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Department of Biology. AOSERP Report 49. 144 pp.

50	ME 3.6	79-5440	Denison, P.J., T.A. McMahon, and J.R. Kramer. 1979. Literature review on pollution deposition processes. Prep. for the Alberta Oil Sands Environmental Research Program and Syncrude Canada Ltd. by Acres Consulting Services Limited and Earth Science Consultants Inc. AOSERP Report 50. 264 pp.
51	HY 1.3	79-5441	Warner, L.S. and N.O. Spitzer. 1979. Interim compilation of 1976 suspended sediment data for the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Environment Canada, Water Survey of Canada. AOSERP Report 51. 59 pp.
52	ME 2.3.2	80-2161	Davison, D.S. and K.L. Grandia. 1979. Plume dispersion measurements from an oil sands extraction plant, June 1977. Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 52. 209 pp.
53	HY 3.1.2	79-5603	Strosher, M.T. and E. Peake. 1979. Baseline states of organic constituents in the Athabasca River system upstream of Fort McMurray. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Environmental Sciences Centre (Kananaskis). AOSERP Report 53. 71 pp.
* 54	WS 2.3	79-5606	Nix, P.G., J.W. Costerton, R. Ventullo, and R.T. Coutts. 1979. A preliminary study of chemical and microbial characteristics of the Athabasca River in the Athabasca Oil Sands area in northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Chemical and Geological Laboratories Ltd., Microbios Ltd., and Xenotox Services Ltd. AOSERP Report 54. 135 pp.
55	HY 2.6	79-5442	Costerton, J. and G.G. Geesey. 1979. Microbial populations in the Athabasca River. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Department of Biology. AOSERP Report 55. 65 pp.
* 56	AF 3.2.1	79-5607	Giles, M.A., J.F. Klaverkamp, and S.G. Lawrence. 1979. The acute toxicity of saline groundwater and of vanadium to fish

			and aquatic invertebrates. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 56. 216 pp.
* 57	LS 2.3.1	80-2162	Thompson, M.D. 1979. Ecological habitat mapping of the AOSERP study area (supplement): Phase I. Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. AOSERP Report 57. 45 pp.
58	AF 2.0.2	80-0773	Lock, M.A. and R.R. Wallace. 1979. Interim report on ecological studies on the lower trophic levels of muskeg rivers within the Alberta Oil Sands Program study area. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada. AOSERP Report 58. 105 pp.
* 59	TF 3.1	79-5610	Gilbert, F.F., S.A. Brown, and M.E. Stoll. 1979. Semi-aquatic mammals: annotated bibliography. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Guelph, Department of Zoology. AOSERP Report 59. 167 pp.
* 60	WS 1.1.1	79-5604	Neill, C.R. and B.J. Evans. 1979. Synthesis of surface water hydrology. Prep. for the Alberta Oil Sands Environmental Research Program by Northwest Hydraulic Consultants Ltd. AOSERP Report 60. 84 pp.
61	AF 4.5.2	80-0774	Machniak, K. and W.A. Bond. 1979. An intensive study of the fish fauna of the Steepbank River watershed of northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 61. 196 pp.
62	TF 5.1	79-5606	Roberts, W., V. Lewin, and L. Brusnyk. 1979. Amphibians and reptiles in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Museum of Zoology. AOSERP Report 62. 51 pp.
63	HE 3.8.3	80-2163	Davison, D.S. and E.D. Leavitt. 1979. Analysis of AOSERP plume sigma data. Prep. for the Alberta Oil Sands Environmental

			Research Program by Intera Environmental Consultants Ltd. AOSERP Report 63. 251 pp.
* 64	LS 21.6.1	80-3256	Thomson, D.C., D.M. Ealey, and K.H. McCourt. 1979. A review and assessment of the baseline data relevant to the impacts of oil sands developments on large mammals in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by McCourt Management Ltd. AOSERP Report 64. 155 pp.
65	LS 21.6.2	80-3101	Penner, D.F., K.H. McCourt, and K.E. Smythe. 1979. A review and assessment of the baseline data relevant to the impacts of oil sands development on black bear in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by McCourt Management Ltd. AOSERP Report 65. 53 pp.
66	AS 4.3.2	80-0775	Reid, J.D., J.L. Walmsley, I.B. Findleton, and A.D. Christie. 1979. An assessment of the models LIRAQ and ADPIC for application to the Alberta oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. AOSERP Report 66. 95 pp.
* 67	WS 1.3.2	80-0776	Lock, M.A. and R.R. Wallace. 1979. Aquatic biological investigations of the Muskeg River watershed. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 67. 29 pp.
68	AS 1.5.3	80-2164	Fanaki, F., R. Hoff, L. Barrie, R. Mickle, H. Lusis, K. Anlauf, A. Gallant, J. Kovalick, F. Froude, J. Markes, J. Arnold, S. Melnichuk, A. Moser, and D. Bagg. 1979. Air system summer field study in the AOSERP study area, June 1977. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. AOSERP Report 68. 248 pp.
69	HS 40.1	80-2165	Deines, A., C. Littlejohn, and T. Hunt. 1979. Native employment patterns in Alberta's Athabasca oil sands region. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Institute for Research in the Behavioral and Social Sciences. AOSERP Report 69. 216 pp.

70	LS 28.1.2	80-0142	Ealey, D.M., S. Hannon, and G.J. Hilchie. 1979. An interim report on the insectivorous animals in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by McCourt Management Ltd. AOSERP Report 70. 294 pp.
71	HY 2.2	80-0144	Hesslein, R.H. 1979. Lake acidification potential in the Alberta Oil Sands Environmental Research Program study area. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 71. 36 pp.
72	LS 7.1.2	80-2166	Green, J.E. 1979. The ecology of five major species of small mammals in the AOSERP study area: a review. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Limited, Environmental Research Associates. AOSERP Report 72. 104 pp.
* 73	LS 23.2	80-3257	Searing, G.F. 1979. Distribution, abundance, and habitat associations of beavers, muskrats, mink, and river otters in the AOSERP study area, northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Limited, Environmental Research Associates. AOSERP Report 73. 119 pp.
* 74	AS 4.5	80-0143	Angle, R.P. 1979. Air quality modelling and user needs. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Air Quality Control Branch. AOSERP Report 74. 34 pp.
75	WS 1.3.4	80-2633	Hickman, M., S.E.D. Charlton, and C.G. Jenkerson. 1979. Interim report on a comparative study of benthic algal primary productivity in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Botany. AOSERP Report 75. 107 pp.
76	AF 4.5.1	80-0777	Bond, W.A. and K. Machniak. 1979. An intensive study of the fish fauna of the Muskeg River watershed of northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 76. 180 pp.

77	HS 20.1	80-2167	Peter C. Nichols and Associates Ltd. 1979. Overview of local economic development in the Athabasca Oil Sands region since 1961. Prep. for the Alberta Oil Sands Environmental Research Program by Peter C. Nichols & Associates Ltd. AOSERP Report 77. 221 pp.
* 78	LS 22.1.1	80-3258	Francis, J. and K. Lumbis. 1979. Habitat relationships and management of terrestrial birds in northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Wildlife Service. AOSERP Report 78. 365 pp.
79	AF 3.6.1	80-2634	Anderson, P.D., P. Spear, S. D'Appolonia, S. Perry, J. Deluca, and J. Dick. 1979. The multiple toxicity of vanadium, nickel, and phenol to fish. Prep. for the Alberta Oil Sands Environmental Research Program by Concordia University, Department of Biology. AOSERP Report 79. 109 pp.
* 80	HS 10.2 & HS 10.1	81-1214	Parker, J.M. and K.W. Tingley. 1980. History of the Athabasca Oil Sands region, 1890 to 1960's. Volume I: socio-economic developments. Volume II: oral history. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Boreal Institute for Northern Studies. AOSERP Report 80. 155 and 70 pp.
81	LS 22.1.2	80-2168	Hennan, E. and B. Munson. 1979. Species distribution and habitat relationships of waterfowl in northeastern Alberta. Prep. for Alberta Oil Sands Environmental Research Program by Canadian Wildlife Service. AOSERP Report 81. 115 pp.
* 82	LS 22.2	80-2169	Beaver, R. and M. Ballantyne. 1979. Breeding distribution and behaviour of the White Pelican in the Athabasca Oil Sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Wildlife Service. AOSERP Report 82. 93 pp.
* 83	LS 22.2	80-2170	Ealey, D. 1979. The distrubution, foraging behaviour, and allied activities of the White Pelican in the Athabasca Oil Sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Wildlife Service. AOSERP Report 83. 70 pp.

84	WS 1.6.1	80-2635	Tripp, D.B. and P.J. McCart. 1979. Investigations of the spring spawning fish populations in the Athabasca and Clearwater rivers upstream from Fort McMurray: Volume I. Prep. for the Alberta Oil Sands Environmental Research Program by Aquatic Environmental Limited. AOSERP Report 84. 128 pp
85	HY 2.5	80-1579	Akena, A.M. 1979. An intensive surface water quality study of the Muskeg River watershed. Volume I: water chemistry. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment. AOSERP Report 85. 187 pp.
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87	WS 2.2	80-2636	Schwartz, F.W. 1980. Hydrogeological investigation of Muskeg River basin, Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by University of Alberta, Department of Geology. AOSERP Report 87. 97 pp.
* 88	AF 2.0.1	80-3259	Barton, D.R. and R.R. Wallace. 1980. Ecological studies of the aquatic invertebrates of the Alberta Oil Sands Environmental Research Program study area of northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. AOSERP Report 88. 216 pp.
89	AF 4.3.2	80-2637	Bond, W.A. 1980. Fishery resources of the Athabasca River downstream of Fort McMurray, Alberta: Volume I. Prep. for the Alberta Oil Sands Environmental Research Program by Department of Fisheries and Oceans, Freshwater Institute. AOSERP Report 89. 81 pp.
* 90	AS 3.2	80-3102	Barrie, L.A. and J. Kovalick. 1980. A wintertime investigation of the deposition of pollutants around an isolated power plant in northern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. AOSERP Report 90. 115 pp.

* 91	LS 5.2	80-3260	Kong, K., J.D. Lindsay, and W.B. McGill. 1980. Characterization of stored peat in the Alberta oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Research Council of Alberta, Soils Division, and the University of Alberta, Department of Soil Science. AOSERP Report 91. 116 pp.
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93	WS 1.3.1	80-4554	Machniak, K., W.A. Bond, M.R. Orr, D. Rudy, and D. Miller. 1980. Fisheries and aquatic habitat investigations in the MacKay River watershed of northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program and Syncrude Canada Ltd. by Department of Fisheries and Oceans. AOSERP Report 93. 273 pp.
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* 95	AS 4.2.6	80-4556	Venkatram, A. 1980. Evaluation of the effects of convection on plume behaviour in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program. AOSERP Report 95. 75 pp.
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97	LS 3.4.1	80-4557	Baker, J. 1980. Differences in the composition of soils under open and canopy conditions at two sites close-in to the Great Canadian Oil Sands operation, Fort McMurray, Alberta. Prep. for the Alberta

Oil Sands Environmental Research Program by Northern Forest Research Centre, Canadian Forestry Service. AOSERP Report 97. 24 pp.

* 98 LS 3.4.2 80-0364 Addison, P.A. 1980. Baseline condition of jack pine biomonitoring plots in the Athabasca Oil Sands area; 1976-1977. Prep. for the Alberta Oil Sands Environmental Research Program by Northern Forest Research Centre, Canadian Forestry Service. AOSERP Report 98. 43 pp.

99 LS 10.1 81-0365 Eulert, G.K. and H. Hernandez. 1980. Synecology and autecology of boreal forest vegetation in the Alberta Oil Sands Environmental Research Program study area. Prep. for the Alberta Oil Sands Environmental Research Program by Interdisciplinary Systems Ltd. AOSERP Report 99. 184 pp.

100 LS 10.2 81-0847 Thompson, M.S. and J. Crosby-Diewold. 1980. Baseline inventory of aquatic macrophyte species distributions in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Intera Environmental Consultants Ltd. and Beak Consultants Ltd. AOSERP Report 100. 73 pp.

*101 LS 21.1.3 81-0366 Fuller, T.K. and L.B. Keith. 1980. Woodland caribou population dynamics in northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Wisconsin, Department of Ecology. AOSERP Report 101. 63 pp.

102 LS 21.1.4 81-0849 Fuller, T.K. and L.B. Keith. 1980. Wolf population dynamics and prey relationships in northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Wisconsin, Department of Ecology. AOSERP Report 102. 58 pp.

*103 HS 50.4 81-1216 MTB Consultants Ltd. 1980. Analysis of the leisure delivery system 1972-1979, with projections for future servicing requirements. Prep. for the Alberta Oil Sands Environmental Research Program by MTB Consultants Ltd. AOSERP Report 103. 204 pp.

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			area. Prep. for the Alberta Oil Sands Environmental Research Program by the Department of Chemistry, University of Alberta. AOSERP Report 117. 159 pp.
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128	WS 1.3.4	83-3464	Hickman, M., S.E.D. Charlton, and C.G. Jenkerson. 1983. A comparative study of benthic algal primary productivity in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Department of Botany, University of Alberta and Department of Plant Sciences, University of Western Ontario. AOSERP Report 128. 139 pp.
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130	82-05		Rudolph, R.C., M.M. Oleskiw, and R.A. Stuart. 1984. Climatological analysis of recent data from the Athabasca Oil Sands area. Prep. by Alberta Environment, Research Management Division for Intera Environmental Consultants Ltd. AOSERP Report No. 130. 199 pp.

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*81/6		84-1022	McLean, E., ed. 1981. Research Management Division annual review: 1980/81. Prep. for Alberta Environment, Research Management Division. RMD Report 81/6. 70 pp.

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*81/7			McLean, E., ed. 1981. Proceedings of a workshop on sanitary landfill research. Prep. for Alberta Environment, Research Management Division. RMD Report 81/7. 287 pp.
*82/7	80-86	82-4349	Chorley, D.W., F.W. Schwartz, and A.S. Crowe. 1982. Inventory and potential applications of groundwater flow and chemistry models. Prep. for Alberta Environment, Research Management Division by Department of Geology, University of Alberta. RMD Report 82/7. 73 pp.
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			Western Research, Division of Bow Valley Resource Services Ltd. RMD Report 82/12. 45 pp.
*82/13	78-21	83-0197	Holowaychuk, N. and J.D. Lindsay. 1982. Distribution and relative sensitivity to acidification of soils, Sand River area, Alberta. Prep. for Alberta Environment, Research Management Division and Canadian Petroleum Association by the Soil Department, Alberta Research Council. RMD Report 82/13. 93 pp.
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*82/17	79-41	83-1990	Krahn, H. 1983. Environmental issues in Alberta: The opinions of Edmonton residents. Prep. for Alberta Environment, Research Management Division by Thames Group Research. RMD Report 82/17. 25 pp.

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81-53 83-3466 Hart, A.G., R.G. Humphreys, A.L. McMullen, and B.U. Patel. 1983. A review of the technology available for the control of atmospheric emissions from oil sands plants. Prep. for Alberta Environment, Research Management Divison by Dynawest Projects Ltd. RMD Report 83/19. 293 pp.

79-38 83-3467 Gray, J.M.L. and G.G. Goyer. 1983. Injection of silver iodide from cloud seeding into the atmosphere of central Alberta. Prep. for Alberta Environment, Research Management Division by Alberta Research Council. RMD Report 83/20. 34 pp.

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84-0189 Research Management Division. 1983. Research Management Division annual report for the fiscal year 1982/83. Prep. by Alberta Environment, Research Management Division. Edmonton, Alberta. RMD Report 83/22. 52 pp.

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83/26	82-23		Colley, D.G., R.W. Poon, M.J. Zelensky, and L. Zanzotto. 1984. Alberta oxides of nitrogen emissions forecast 1980 to 2000. Prep. for Alberta Environment, Research Management Division by Western Research, Division of Bow Valley Resources Ltd. Edmonton, Alberta: Research Management Division. RMD Report 84/26. 101 pp.
84/27	81-08	84-2285	Hrudey, S.E. 1984. Special waste residue management for Alberta. Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Alberta. Edmonton, Alberta: Research Management Division. RMD Report 84/27. 172 pp.

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Environmental Research Program by Aquatic Environments Ltd. RMD Report L-7. 179 pp.

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*L-18	VE 5.2		Kong, K., J.D. Lindsay, and W.D. McGill. 1979. Interim report on characterization and utilization of peat in the Athabasca oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Soils Division. RMD Report L-18. 95 pp.
*L-19	HE 1.2.6	80-2766	Johnson, H.L. 1979. An exploratory study of deviance in the Athabasca oil sands area. Prep. for the Alberta Oil Sands Environmental Research Program. RMD Report L-19. 74 pp.
*L-20	HE 2.3	80-2768	Assheton-Smith, M.I. 1979. Training and employing indigenous workers: a conceptual scheme and a proposal. Prep. for the Alberta Oil Sands Environmental Research Program. RMD Report L-20. 63 pp.
*L-21	TF 1.1		Rolley, R. and L. Keith. 1979. A review of moose habitat requirements. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Recreation, Parks, and Wildlife. RMD Report L-21. 25 pp.
*L-22	HY 1.1		Warner, L.A. and M.O. Spitzer. 1979. Interim compilation of stream gauging data, 1977. Prep. for the Alberta Oil Sands Environmental Research Program by Environment Canada. RMD Report L-22. 99 pp.

*L-23	AF 2.0		Barton, D.R. and R.R. Wallace. 1979. Interim report on ecological studies on the benthic invertebrates of various rivers in the Alberta Oil Sands Environmental Research Program study area, northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Fisheries and Environment Canada, Freshwater Institute. RMD Report L-23. 76 pp.
*L-24	HE 2.4	80-2769	Parker, J.M. 1979. Athabasca oil sands historical research project. Volume I: design. Prep. for the Alberta Oil Sands Environmental Research Program. RMD Report L-24. 75 pp.
*L-25	ME 4.2.1		Padro, J. 1979. Review of dispersion models and possible applications in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. RMD Report L-25. 64 pp.
*L-26	TF 3.1		Gilbert, F.F. 1979. Interim report on semi-aquatic mammal studies, 1977-78. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Guelph, Department of Zoology. RMD Report L-26. 76 pp.
*L-27	ME 3.8.1		Turner, H.E. and F.H. Fanaki. 1979. A feasibility study of the estimation of atmospheric dispersion coefficients from wind fluctuation statistics in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service. RMD Report L-27. 25 pp.
L-28	HE 2.2.1	80-2767	Van Dyke, E.W., C. Loberg, D. Bai, and L.M. Church. 1979. Research design for the study of social problems. Prep. for the Alberta Oil Sands Environmental Research Program by Applied Research Associates Ltd. RMD Report L-28. 97 pp.
*L-29	VE 7.1		Sherstabetoff, J.N., B.G. Dunsworth, and S.K. Takyi. 1978. Interim report on reclamation for afforestation by suitable native and introduced tree and shrub species. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Forest Service, Reforestation and Reclamation Branch. RMD Report L-29. 90 pp.
*L-30	TF 6.1		Phillips, W., D. DePape, and L. Ewanyk. 1979. A socioeconomic evaluation of the recreational use of fish and wildlife resources in Alberta, with particular reference to the AOSERP study area.

Vol. II: recreational fishing. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Rural Economy. RMD Report L-30. 171 pp.

*L-31 TF 6.1 Phillips, W., D. DePape, and L. Ewanyk. 1979. A socioeconomic evaluation of the recreational use of fish and wildlife resources in Alberta, with particular reference to the AOSERP study area. Vol. II: recreational hunting. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Rural Economy. RMD Report L-31. 149 pp.

*L-32 No report published.

*L-33 WS 1.1 Warner, L.A. 1979. Interim compilation of stream gauging data, 1978. Prep. for the Alberta Oil Sands Environmental Research Program by Water Survey of Canada, Environment Canada. RMD Report L-33. 68 pp.

*L-34 PM-2 Yaremko, E.K. and R.B. Murray. 1979. Evaluation of the baseline hydrometric and water quality networks in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Northwest Hydraulic Consultants Ltd. and Chemical and Geological Laboratories Ltd. AOSERP Program Management Report PM-2. RMD Report L-34. 216 pp.

*L-35 HE1.1.2 80-2764 Snider, E.L. 1979. Development of a theoretical social indicators model: a feasibility study. Stage A: applicability of the approach to the Athabasca oil sands region. Prep. for the Alberta Oil Sands Environmental Research Program by Urban Research and Consulting Ltd. RMD Report L-35. 86 pp.

*L-36 WS 4.1 Lock, M.A. and R.R. Wallace. 1979. Studies in recolonization of stream substrates by aquatic organisms. Prep. for the Alberta Oil Sands Environmental Research Program by Freshwater Institute, Environment Canada. RMD Report L-36. 22 pp.

*L-37	WS 4.1.1		Lock, M.A. and R.R. Wallace. 1979. Ability of lotic microorganisms and macrobenthos to degrade and assimilate bitumen. Prep. for the Alberta Oil Sands Environmental Research Program by Freshwater Institute, Environment Canada. RMD Report L-37. 39 pp.
*L-38	HE 1.2.1	80-2765	Larson, L.E. 1979. The impact of resource development on individual and family well-being. Prep. for the Alberta Oil Sands Environmental Research Program by Family Research and Consulting Ltd. RMD Report L-38. 191 pp.
*L-39	LS 22.3.2		Munson, B., D. Ealey, R. Beaver, K. Bishoff, and R. Fyfe. 1980. Inventory of selected raptor, colonial, and sensitive bird species in the Athabasca oil sands area of Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Wildlife Service. RMD Report L-39. 66 pp.
*L-40	AF 1.1.2		Lake, W. and W. Rogers. 1979. Acute lethality of mine depressurization water to trout-perch (Percopsis omiscomaycus) and rainbow trout (Salmo gairdneri): volume II. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Water Quality Control Branch. RMD Report L-40. 388 pp.
*L-41	PM-3		Jantzie, T., B. Croft, R.T. Coutts, D.F. Biggs, and A.A. Loman. 1979. Proposed design for a program of toxicological research for the Alberta Oil Sands Environmental Research Program. AOSERP Program Management Report PM-3. RMD Report L-41. 248 pp.
*L-42	WS 3.4		Wrangler, E.M. and R.T. Seidner, compilers and editors. 1979. Aquatic system workshop, 20 and 21 September 1979. Prep. for the Alberta Oil Sands Environmental Research Program. RMD Report L-42. 148 pp.
L-43	LS 25.2		Fox, M. and W.A. Ross. 1979. The influence of oil sands development on trapping in the Fort McMurray region. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Faculty of Environmental Design. RMD Report L-43. 136 pp.
*L-44	AS 2.5		McCann, T.J. 1979. A plan for the identification of potentially toxic materials in the AOSERP study area. Prep. for the Alberta Oil

Sands Environmental Research Program by T.J. McCann and Associates Ltd. RMD Report L-44. 59 pp.

*L-45 AF 2.3.1 Schindler, D.W., R. Wagemann, and R.H. Hesslein. 1979. Interim report on the acidification of Lake 223, experimental lakes area: background data, the first year of acidification (1976), and pilot experiments. Prep. for the Alberta Oil Sands Environmental Research Program by Freshwater Institute, Environment Canada. RMD Report L-45. 90 pp.

*L-46 PM-1 80-1194 R.D. (Reg) Humphrey Engineering and Management Consultants. 1979. An overview assessment of in situ development in the Athabasca deposit. Prep. for the Alberta Oil Sands Environmental Research Program. AOSERP Program Management Project PM-1. RMD Report L-46. 83 pp.

*L-47 PM-4 80-2172 James F. McLaren Limited. 1979. Assessment of data management alternatives for the Alberta Oil Sands Environmental Research Program. Part I: final report. Prep. for the Alberta Oil Sands Environmental Research Program by James F. McLaren Limited. Program Management Report PM-4. RMD Report L-47. 38 pp.

*L-48 PM-4 80-1195 James F. McLaren Limited. 1979. Assessment of data management alternatives for the Alberta Oil Sands Environmental Research Program. Part II: project information catalogue. Prep. for the Alberta Oil Sands Environmental Research Program by James F. McLaren Limited. Program Management Report PM-4. RMD Report L-48. 181 pp.

*L-49 LS 2.1 Turchenek, L.W. and J.D. Lindsay. 1979. Interim report on the soils inventory of the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Soils Division. RMD Report L-49. 114 pp.

*L-50 WS 1.5.2 Herbert, B.K. 1979. Supplemental fisheries life history data for selected lakes and streams in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Limited. RMD Report L-50. 55 pp.

*L-51 WS 1.1 Warner, L.A. 1979. Interim compilation of 1977 suspended sediment for the AOSERP study area. Prep. for the Alberta Oil Sands Environmental

Research Program by Water Survey of Canada, Environment Canada. RMD Report L-51. 47 pp.

*L-52 WS 1.3.5 Crowther, R.A. and T.C. Griffing. 1979. A literature and bibliography of factors affecting the productivity of benthic invertebrates in running waters and the use of trophic classification in aquatic energy studies. Prep. for the Alberta Oil Sands Environmental Research Program by IEC International Environmental Consultants Ltd. RMD Report L-52. 216 pp.

*L-53 AF 4.3.2 Bond, W.A. and D.K. Berry. 1980. Fishery resources of the Athabasca River downstream of Fort McMurray, Alberta: volume II. Prep. for the Alberta Oil Sands Environmental Research Program by Department of Fisheries and Oceans and Alberta Department of the Environment. RMD Report L-53. 158 pp.

*L-54 AF 4.3.2 Bond, W.A. and D.K. Berry. 1980. Fishery resources of the Athabasca River downstream of Fort McMurray, Alberta: volume III. Prep. for the Alberta Oil Sands Environmental Research Program by Department of Fisheries and Oceans and Alberta Department of the Environment. RMD Report L-54. 262 pp.

*L-55 WS 1.2.2 Andreychuk, A.P. 1980. Inventory of water use requirements and effluent discharge characteristics related to oil sands development. Prep. for the Alberta Oil Sands Environmental Research Program by Stanley Associates Engineering Ltd. RMD Report L-55. 84 pp.

*L-56 HY 2.5 Froelich, C.R. 1979. An intensive surface water quality study of the Muskeg River watershed. Volume II: hydrology. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Systems and Computing Branch. RMD Report L-56. 194 pp.

*L-57 HY 2.1 Froelich, C.R. and G. Lee. 1980. Watersheds in the Alberta Oil Sands Environmental Research Program study area: drainage basin delineations, watershed areas, and stream profiles. Prep. by the Alberta Oil Sands Environmental Research Program. RMD Report L-57. 108 pp.

* L-58 HS 50.1 81-2403 Marino, M.L., J. Collins, and G. Brawn. 1980. Human perception of the natural environment. Prep. for the Alberta Oil Sands Environmental

Research Program by Graham Brawn and Associates. RMD Report L-58. 137 pp.

*L-59 WS 3.5 McCart, P.J. and D.W. Mayhood. 1980. A review of aquatic biomonitoring with particular reference to its possible use in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Aquatic Environments Limited. RMD Report L-59. 117 pp.

*L-60 WS 1.4.1 Ash, G.R. and L.R. Noton. 1980. A fisheries and water quality survey of ten lakes in the Richardson Tower area, northeastern Alberta. Volume II: data. Prep. for the Alberta Oil Sands Environmental Research Program by R.L. & L. Environmental Services Ltd. RMD Report L-60. 95 pp.

*L-61 WS 1.5.1 Psutka, M.M. and B.W. Harvie. 1980. Physical description of selected tributary mouths and sheltered backwaters of the Athabasca and Clearwater rivers. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Limited, Environmental Research Associates. RMD Report L-61. 105 pp.

*L-62 HY 2.8.1 Seidner, R.T. 1980. Regional water quality of the Alberta Oil Sands Environmental Research Program study area. Volume II: discussion of 1976 and 1977 data. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Pollution Control Division. RMD Report L-62. 246 pp.

*L-63 WS 1.1 Thorson, K.M. 1980. Interim compilation of stream gauging data, 1979. Prep. for the Alberta Oil Sands Environmental Research Program by Water Survey of Canada, Environment Canada. RMD Report L-63. 63 pp.

*L-64 WS 2.3.2 Wallis, P., E. Peake, M. Strosher, B. Baker, and S. Telang. 1980. The assimilative capacity of the Athabasca River for organic compounds. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Calgary, Kananaskis Centre for Environmental Research. RMD Report L-64. 106 pp.

*L-65 LS 2.3.2 Steen, O.A. 1980. A review and assessment of vegetation formation for the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Hardy Associates (1978) Ltd.

			AOSERP Project LS 2.3.2. RMD Report L-65. 100 pp.
*L-66	WS 1.2.1		Akena, A.M. 1980. Water quality of the Athabasca oil sands area. Volume I: data collection and quality. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Environment, Pollution Control Division. RMD Report L-66. 100 pp.
*L-67	LS 21.1.1		Hauge, T.M. and L.B. Keith. 1980. Dynamics for moose populations in the AOSERP study area in northeastern Alberta. Prep. for the Alberta Oil Sands Environmental Research Program by University of Wisconsin, Department of Wildlife Ecology. RMD Report L-67. 64 pp.
*L-68	HS 30.5	81-2410	Gartrell, J.W., H. Krahn, and F.D. Sunahara. 1980. A study of human adjustment in Fort McMurray. Volume II: technical manual. Prep. for the Alberta Oil Sands Environmental Research Program by Thames Group Research Inc. through the University of Alberta, Population Research Laboratory. RMD Report L-68. 189 pp.
L-69	AS 2.6		Murray, W.A. 1981. Gregoire Lake monitoring program: six month report, April to Septempber 1979. Prep. for Amoco Canada Petroleum Company Limited and Research Management Division, Alberta Environment. RMD Report L-69. 66 pp.
*L-70	HS 40.2	82-0281	Littlejohn, C. and R. Powell. 1981. A study of native integration into the Fort McMurray labor force. Prep. for the Alberta Oil Sands Environmental Research Program by Canadian Institute for Research in the Behavioural and Social Sciences. RMD Report L-70. 168 pp.
*L-71	79-33		Tyler, F.H. and F.J. Tester. Social costing and environment: a compendium and analysis of the implications for Alberta Environment. Prep. for Alberta Environment, Research Management Division by the University of Calgary, Kananaskis Centre for Environmental Research. RMD Report L-71. 68 pp.
L-72			Edwards, F.E. 1981. Sanitary landfill: legislation, environmental protection, and quality of life issues. Prep. for Alberta Environment, Research Management Division. RMD Report L-72. 18 pp.

*L-73	AS 2.1		Strosher, M.M. 1981. Background air quality in the AOSERP study area, March 1977 to March 1980. Prep. for Alberta Environment, Research Management Division by Alberta Environment, Pollution Control Division. RMD Report L-73. 84 pp.
*L-74	WS 1.2.1		Akena, A.M. and L.L. Christian. 1981. Water quality of the Athabasca oil sands area. Volume IV: an interim compilation of non-AOSERP water quality data. Prep. for Research Management Division by Alberta Environment. RMD Report L-74. 242 pp.
*L-75			Sneddon, D.T. and D. Van de Maat. 1981. Preliminary list of works in induced seismicity related to fluid injection. Prep. for Alberta Environment, Research Management Division. RMD Report L-75. 24 pp.
*L-76	80-67	84-1339	Yau, H., K.L. Murphy, Peter L. Timpany. 1982. Athabasca River modelling studies (Phase I) Fort McMurray - Embarras. Prep. for Alberta Environment, Research Management Division by International Environmental Consultants. RMD Report L-76. 101 pp.
*L-77	80-32a	84-1595	Cruden, C.M. 1982. Monitoring the south peak of Turtle Mountain. Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Alberta. RMD Report L-77. 56 pp.
*L-78	81-19	84-2832	Moore, R.L. 1982. Development of the Spirillum volutans motility test for toxicity studies. Prep. for Alberta Environment, Research Management Division by the Department of Microbiology and Infectious Disease, University of Calgary. RMD Report L-78. 30 pp.
*L-79			Replaced by Report OF-53.
L-80	LS 2.1	84-1259	Turchenek, L.W. and J.D. Lindsay. 1982. Soils inventory of the AOSERP study area. Vol. II. Prep. for Alberta Environment, Research Management Division by Alberta Research Council. Appendix 9.4 to AOSERP Report 122. RMD Report L-80. 264 pp. Replaces Report OF-31.
L-81	77-52	84-1257	Wallis, P.M., M.E. Van Zinderen Bakker, and J.M. Buchanan. 1983. Microbiological and organic geochemical studies in reclaimed coal mine backfill at a mountain and prairie minesite

in Alberta. Prep. for Alberta Environment, Research Management Division by the Kananaskis Centre for Environmental Research, University of Calgary. RMD Report L-81. 206 pp.

L-82 81-44 84-1258 Steffler, P.M., N. Rajaratnam, and A.W. Peterson. 1983. Flow in curved channels: A review of the present knowledge. Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Calgary. RMD Report L-82. 60 pp.

L-83 80-32E Fraser, C.S. 1983. Deformation monitoring of Turtle Mountain by high-precision photogrammetry: Final report. Prep. for Alberta Environment, Research Management Division by Division of Surveying Engineering, University of Alberta. RMD Report L-83. 42 pp.

L-84 80-73 84-2833 Hudson, H.R. 1984. Aspects of the hydrologic and sediment regimes of the Muskeg River basin and the consequences of vegetation removal. Prep. for Alberta Environment, Research Management Division by Department of Civil Enginering, Alberta Research Council. RMD Report L-84. 46 pp.

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OPEN FILE REPORTS

No.	Project	References
OF-1	LS 3.1	Addison, P.S. and S.S. Malhotra. 1979. Interim report on symptomology and threshold levels of air pollutant injury to vegetation, 1978-79. Prep. for the Alberta Oil Sands Environmental Research Program by the Northern Forest Research Centre. RMD Report OF-1. 17 pp.
OF-2	LS 3.3	Malhotra, S.S. and A.A. Khan. 1979. Interim report on physiology and mechanisms of airborne pollutant injury to vegetation, 1978-79. Prep. for the Alberta Oil Sands Environmental Research Program by the Northern Forest Research Centre. RMD Report OF-2. 23 pp.
OF-3	LS 3.4	Addison, P.A. and J. Baker. 1979. Interim report on ecological benchmarking and biomonitoring for detection of airborne pollutant effects on vegetation and soils, 1978-79. Prep. for the Alberta Oil Sands Environmental Research Program by the Northern Forest Research Centre. RMD Report OF-3. 17 pp.
OF-4	WS 1.6.1	Tripp, D.B. and P.J. McCart. 1979. Investigations of the spring spawning fish populations in the Athabasca and Clearwater rivers upstream of Fort McMurray, Volume II. Prep. for the Alberta Oil Sands Environmental Research Program by Aquatic Environments Limited. RMD Report OF-4. 94 pp.
OF-5	LS 21.1.2	Rolley, R.E. and L.B. Keith. 1979. Moose population dynamics and winter habitat use at Rochester, Alberta, 1965-77. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Wisconsin, Department of Wildlife Ecology. RMD Report OF-5. 34 pp.
OF-6	LS 7.1.2	Green, J.E. 1979. Baseline states of small mammal populations in the AOSERP study area. Interim report II. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Ltd. RMD Report OF-6. 137 pp.
OF-7	LS 4.1	McGill, W.B., A.H. Maclean, L.W. Turchenek, and C.A. Gale. 1980. Interim reort of soil research related to revegetation of the oil

		sands area. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Soil Sciences. RMD Report OF-7. 181 pp.
OF-8	LS 7.1.1	Green, J.E. 1981. Interim report of an experimental approach to the biological control of small mammal damage to woody plants: 1978 studies. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Limited. RMD Report OF-8. 81 pp.
OF-9	LS 2.1	Turchenek, L.W. and J.D. Lindsay. 1980. Interim report on the soils inventory of the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Alberta Research Council, Soils Department. RMD Report OF-9. 81 pp.
OF-10	HS 30.3	Urban Dimensions Group Inc. 1980. A conceptual model of impacts of oil sands development in the Fort McMurray area. Prep. for the Alberta Oil Sands Environmental Research Program by Urban Dimensions Group Inc. RMD Report OF-10. 85 pp.
OF-11	HS 30.5	Gartrell, J.W. 1980. A study of human adjustment in Fort McMurray. Interim Report II. Prep. for the Alberta Oil Sands Environmental Research Program by Thames Group Research Inc. and the University of Alberta, Population Research Laboratory. RMD Report OF-11. 164 pp.
OF-12	HS 30.1	Berger, E. 1980. Longitudinal study of personal adjustment and social conditions in the Fort McMurray area. Volume I: research design. Prep. for the Alberta Oil Sands Environmental Research Program by Earl Berger Ltd. RMD Report OF-12.
OF-13	HS 30.1	Berger, E. 1980. Longitudinal study of personal adjustment and social conditions in the Fort McMurray area. Volume II: background papers. Prep. for the Alberta Oil Sands Environmental Research Program by Earl Berger Ltd. RMD Report OF-13.
OF-14	HS 30.2	Berger, E. 1980. Longitudinal study of personal adjustment and social conditions in the Fort McMurray area. Pre-test and modification of instruments. Prep. for the Alberta Oil Sands Environmental Research Program by Earl Berger Ltd. RMD Report OF-14.

OF-15	TF 6.1	Phillips, W., D. DePape, and L. Ewanyk. 1980. A socioeconomic evaluation of the recreational use of fish and wildlife resources in Alberta with particular reference to the AOSERP study area. Volume IV: nonconsumptive recreational use of fish and wildlife. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Rural Economy. RMD Report OF-15. 207 pp.
OF-16	WS 1.6.2	Tripp, D.B. and P.T.P. Tsui. 1980. Fisheries and habitat investigation of tributary streams in the southern portion of the AOSERP study area. Volume II: data. Prep. for the Alberta Oil Sands Environmental Research Program by Aquatic Environments Limited. RMD Report OF-16. 236 pp.
OF-17	AS 3.6.2	Denison, P.J. 1980. Pollution deposition field study plan. Prep. for the Alberta Oil Sands Environmental Research Program by Acres Consulting Services Limited. RMD Report OF-17. 82 pp.
OF-18	WS 3.4	Griffiths, W.E. 1980. Aquatic habitat mapping of the AOSERP study area (1978): assessment and recommendations. Prep. for the Alberta Oil Sands Environmental Research Program by LGL Limited. RMD Report OF-18. 75 pp.
OF-19	LS 7.6	Hardy Associates (1978) Ltd. 1980. Evaluation of the AOSERP reclamation research progress and needs. Prep. for the Alberta Oil Sands Environmental Research Program by Hardy Associates (1978) Ltd. RMD Report OF-19. 178 pp.
OF-20	LS 28.1.1	Ryan, J.K. and G.J. Hilchie. 1980. Interim report on an ecological survey of terrestrial insect communities in the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by McCourt Management Ltd. RMD Report OF-20. 87 pp.
OF-21	AS 4.2	Padro, J. and D. Bagg. 1980. Application of the CRSTER model to the Alberta oil sands region. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service, Environment Canada. RMD Report OF-21. 35 pp.

OF-22	AS 4.2.3	Bagg, D. 1980. Validation studies of the CRSTER model in application to the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by Atmospheric Environment Service, Environment Canada. RMD Report OF-22. 35 pp.
OF-23	HS 40.3	Parkinson, A., S.W. Montgomery, and R.D. Humphreys. 1980. A study of the impact of construction camps on the people of northeast Alberta. Prep. for Alberta Oil Sands Environmental Research Program by Urban Consultants Ltd. and R.D. "Reg" Humphreys Engineering and Management Consultants Ltd. RMD Report OF-23. 121 pp.
OF-24	LS 28.1.3	Ryan, J.K. and G.J. Hilchie. 1980. Insects on the Suncor dike: a survey of the types present and an evaluation of their effects on dike vegetation. Prep. for the Alberta Oil Sands Environmental Research Program by McCourt Management Ltd. RMD Report OF-24. 18 pp.
OF-25		McFarlane, K.I. 1981. Post-development biophysical impact assessment of Diplomat Coal Mine, Forestburg, Alberta. RMD Report OF-25. 293 pp. (M.E. Des. Thesis for Faculty of Environmental Design, University of Calgary.)
OF-26		Olding, B.J. 1981. Approaches to comprehensive water resource management for the province of Alberta. RMD Report OF-26. 270 pp. (M.E. Des. Thesis for Faculty of Environmental Design, University of Calgary.)
OF-27	LS 6.1	Bliss, L.C., ed. 1979. Peformance of vegetation on mined sands. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Botany. RMD Report OF-27. 251 pp.
OF-28	WS 1.3.4	Hickman, M., C.E.D. Charlton, and C.J. Jenkerson. 1981. A longitudinal physico-chemical and algal survey of five rivers flowing through the AOSERP study area. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Botany. RMD Report OF-28.
OF-29		Sneddon, D.T. and D. Van de Maat. 1981. Preliminary list of works in landfill subsidence. Prep. for Sanitary Landfill Research Management Committee by the Research Management Division. RMD Report OF-28. 42 pp.

OF-30		Sneddon, D.T. and D. Van de Maat. 1981. Preliminary list of works in acoustic emission. Prep. by Alberta Environment, Research Management Division. RMD Report OF-30. 25 pp.
OF-31	LS 2.1	Replaced by RMD Report L-80.
OF-32		Noton, L. 1981. Bioaccumulation of natural mercury in impoundments: review and outlook for Alberta. Prep. for Alberta Environment, Research Management Division by Chemical and Geological Laboratories Ltd. RMD Report OF-32. 56 pp.
OF-33		Danard, M and M. Gray. 1981. Computer programmer's supplement to "Modelling Topographic Effects on Winds in the Alberta Oil Sands Area." Prep. for Alberta Environment, Research Management Division by Atmospheric Dynamics Corporation. RMD Report OF-33. 19 pp.
OF-34		LaRoi, George H. and Mike Ostafichuk. 1982. Establishment and vegetational survey of 16 Pinus Banksiana-dominated permanent plots for the Athabasca oil sands ecological monitoring project in 1981. Prep. for Alberta Environment, Research Management Division by University of Alberta, Department of Botany. RMD Report OF-34.
OF-35		Hall, P.L. and O. Tokarski. 1981. Review of groundwater information associated with in situ recovery. Prep. for Alberta Environment, Research Management Division. RMD Report OF-35. 109 pp.
OF-36	80-35c	Turchenek, L.W. 1982. Soils of permanent sample plots in the Athabasca oil sands area. Prep. for Alberta Environment, Research Management Division by Alberta Research Council, Soils Department. RMD Report OF-36. 71 pp.
OF-37	80-70	Mayhood, D.W. and L.D. Corkum. 1982. Chemical and biological monitoring of Muskeg drainage at the Alsands project site. Volume I: review of available data on the Muskeg River. Prep. for Alberta Environment and Alsands Energy Limited by Aquatic Environments Limited. RMD Report OF-37. 106 pp.
OF-38	80-70	Mayhood, D.W., C.L. Walder, T. Dickson, R.B. Green, D.E. Reid, and R. Stushnoff. Chemical and biological monitoring of Muskeg drainage at the Alsands project site. Volume II. Prep. for Alberta Environment and Alsands Energy

		Limited by Aquatic Environments Limited and Hardy Associates (1978) Limited. RMD Report OF-38. 295 pp.
OF-39	80-70	Mayhood, D.W. 1982. Chemical and biological monitoring of Muskeg drainage at the Alsands project site, program evaluation and suggestions for continued monitoring. Prep. for Alsands Energy Limited by Aquatic Environments Limited. RMD Report OF-39. 35 pp.
OF-40	81-20	Watson, M., D.C. Sego, and S. Thomson. 1982. A literature review of settlement behaviour of sanitary landfills and their application to Alberta. Prep. for Alberta Environment, Research Management Division by the University of Alberta, Department of Civil Engineering. RMD Report OF-40. 82 pp.
OF-41	RS 75-32	Moell, Charles E. 1982. Sanitary landfill studies in Alberta, summary of investigations to date. Prep. for Alberta Environment, Research Management Division and Waste Management Branch by Western Soil and Environmental Services. RMD Report OF-41. 151 pp.
OF-42		MacLaren Engineers, Planners, and Scientists Inc. 1982. Evaluation of organic pollutants in sanitary landfill leachate. Prep. for Alberta Environment by MacLaren Engineers, Planners, and Scientists Inc. RMD Report OF-42. 159 pp.
OF-43	80-24	Addison, P.A., A.A. Khan, S. L'Hirondelle, and F. Theriault. 1982. Impact of air pollutant mixtures on forest vegetation and soils. Prep. for Alberta Oil Sands Environmental Research Program by Northern Forest Research Centre, Canadian Forestry Service. RMD Report OF-43. 28 pp.
OF-44		Khan, A.A., S.S. Malhotra, F. Radford, and P.A. Addison. 1981. Effects of SO_2 on lichen physiology. Prep. for Alberta Oil Sands Environmental Research Program by Northern Forest Research Centre, Canadian Forestry Service. RMD Report OF-44. 12 pp.
OF-45	79-41	Krahn, H. 1982. Attitudes toward the environment - Edmonton, 1980-1982; Winnipeg, 1981. Prep. for Alberta Environment, Research Management Division by Thames Group Research. RMD Report OF-45. 82 pp.

OF-46	80-32a	Cruden, D.M. 1983. Monitoring the south peak of Turtle Mountain (Phase II). Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Alberta. RMD Report OF-46. 42 pp.
OF-47	80-34b	Parker, G. 1983. Scour in coarse-bedded streams. Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Minnesota. RMD Report OF-47. 91 pp.
OF-48	LS 7.1	Sherstabetoff, J.N., B.G. Dunsworth, and S.K. Takyi. 1983. Interim report on reclamation for afforestation by suitable native and introduced tree and shrub species. Prep. for Alberta Environment, Research Management Division by Alberta Forest Service. RMD Report OF-48. 269 pp.
OF-49	79-34	Kanasewich, E.R., C. Gold, D.T. Sneddon, M. Burke, and D. Kenway. 1983. The Cold Lake digital seismic monitoring array. Prep. for Alberta Environment, Research Management Division by Department of Physics, University of Alberta; Alberta Environment; and Druid Electronics Ltd. RMD Report OF-49. 14 pp.
OF-50		Sneddon, D.T. 1983. Hydrotechnical research in the Alberta Oil Sands. Prep. by the Alberta Environment, Research Management Division. RMD Report OF-50. 34 pp.
OF-51		Sneddon, D.T. 1983. The effects of seismic blasting on water wells. Prep. by Alberta Environment, Research Management Division. RMD Report OF-51. 247 pp. (M.Sc, thesis for Department of Civil Engineering, University of Alberta.)
OF-52	80-09	Case, J.W. 1983. Biomonitoring of air pollution in Alberta with lichens and mosses. Prep. for Alberta Environment, Research Management Division. RMD Report OF-52. 154 pp.
OF-53	79-47	Boerger, H. 1983. Distribution and abundance of macrobenthos in the Athabasca River near Fort McMurray. Prep. for Alberta Environment, Research Management Division by Department of Physics, University of Calgary. RMD Report OF-53. 77 pp.
OF-54	80-92	Kasinska, B.M. 1983. Human system Alberta Oil Sands Environmental Research Program 1975-1980: an integration and synthesis of research

		results. Fort McMurray: 1961-1980. Prep. for Alberta Environment, Research Management Division. RMD Report OF-54. 210 pp.
OF-55	LS 4.6	Krouse, H.R. and J.W. Case. 1983. Sulphur isotope abundances in the Alberta Oil Sands Environmental Research Program study area. Prep. for Alberta Oil Sands Environmental Research Program by University of Calgary Interdisciplinary Sulphur Research Group (UNISUL) and Department of Physics, University of Calgary. RMD Report OF-55. 99 pp.
OF-56	81-07	Ladd, T., F. Cusack, and J.W. Costerton. 1983. A study of the bacteriology of the epilithic, planktonic, and sediment communities in the Bow River, Alberta. Prep. for the Alberta Environment, Research Management Division by University of Calgary. RMD Report OF-56. 192 pp.
OF-57	80-32F	Anderson, E.G. and P.C. Stoliker. 1983. Remote EDM monitoring of fractures on Turtle Mountain - Phase I. Prep. for Alberta Environment, Research Management Division by Division of Surveying Engineering, University of Calgary. RMD Report OF-57. 27 pp.
OF-58		Maruschak, O. 1983. Surface water quality management in Alberta: policy and institutional arrangements. Prep. for Alberta Environment, Research Management Division. RMD Report OF-58. 175 pp.
OF-59	80-32a	Cruden, D.M. 1983. Monitoring the south peak of Turtle Mountain, phases 2 and 3. Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Alberta. RMD Report OF-59. 51 pp.
OF-60	80-32a	Cruden, D.M. 1983. Monitoring the south peak of Turtle Mountain, phase 3 - possible modes of ground movement. Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Alberta. RMD Report OF-60. 47 pp.
OF-61	79-32	Taube, H. and S.E. Hrudey. 1983. Evaluation of organic pollutants in sanitary landfill leachate. Prep. for Alberta Environment, Research Management Division by MacLaren

			Engineers Planners and Scientists, Inc. RMD Report OF-61. 158 pp.
OF-62	80-32a		Fraser, C.S. 1983. Deformation monitoring of Turtle Mountain high-precision photogrammetry: external appendix. Prep. for Alberta Environment, Research Management Division by Division of Surveying Engineering, University of Alberta. RMD Report OF-62. 1 vol.
OF-63	79-09	84-1610	Hudson, H.R. 1983. Hydrology and sediment transport in the Elbow River basin, southwestern Alberta. 1983. RMD Report OF-63. 322 pp. (Ph.D. thesis for Department of Geography, University of Alberta.)
OF-64	80-35a	84-1611	LaRoi, G.H. and M. Ostafichuk. 1983. Structural dynamics of boreal forest ecosystems on three habitat types in the Hondo-Lesser Slave Lake area of north central Alberta in 1981. Prep. for Alberta Environment, Research Management Division by Department of Botany, University of Alberta. RMD Report OF-64. 110 pp.
OF-65	80-35a	84-1612	LaRoi, G.H., M.S. Ross, and M. Ostafichuk. 1983. Structural dynamics of boreal forest ecosystems on three habitat types in the Hondo-Lesser Slave Lake area of north central Alberta in 1982. Volume I: Text; Volume II: Appendix. Prep. for Alberta Environment, Research Management Division by Department of Botany, University of Alberta. RMD Report OF-65. 2 vols.
OF-66	80-35a	84-1613	Ostafichuk, M. and G.H. LaRoi. 1983. Progress report for 1982: Pinus Banksiana-dominated permanent sample plots in the Athabasca Oil Sands. Prep. for Alberta Environment, Research Management Division by Department of Botany, University of Alberta. RMD Report OF-66. 189 pp.

OF-67	80-13	84-1614	Canadian Forestry Service. 1983. Canadian Forestry Service toxic substances project NOR-7-82: Annual report. Prep. for Alberta Environment, Research Management Division by Canadian Forestry Service. RMD Report OF-67. 244 pp.
OF-68	79-41		Krahn, H. 1983. Environmental issues in Alberta: The opinions of Edmonton residents, 1983. Prep. for Alberta Environment, Research Management Division by Department of Sociology, University of Alberta. RMD Report OF-68. 18 pp.
OF-69	LS 4.6	84-2830	Krouse, H.R. and J.W. Case. 1984. Design, development, and field testing of a mobile nine unit high volume air sampler array. Prep. for Alberta Environment, Research Management Division by Physics Department, University of Calgary. RMD Report OF-69. 45 pp.
OF-70	81-5		Parkinson, D., ed. 1984. Mycorrhizal studies regarding the reclamation of oil sand tailings: production and outplanting of jack pine seedlings and amounts of VA- and ectomycorrhizal inoculum stockpiled peat. Prep. for Alberta Environment, Research Management Division. RMD Report OF-70. 131 pp.
OF-71	81-59		Krahn, H. 1984. Labour market segmentation in Fort McMurray. RMD Report OF-71. 329 pp. (Ph.D. thesis for Department of Sociology, University of Alberta.)
OF-72	80-143	84-2831	Manz, David H. 1984. Performance evaluation of distributary canals in southern Alberta. Prep. for Alberta Environment, Research Management Division by Department of Civil Engineering, University of Calgary. RMD Report OF-72. 38 pp.

OF-73	81-44	Steffler, Peter M. 1984. Turbulent flow in a curved rectangular channel. RMD Report OF-73. 262 pp. (Ph.D. Thesis for Department of Civil Engineering, University of Alberta.)
OF-74	80-32	Biberhofer, H. 1984. Turtle Mountain study archive inventory. Prep. for Alberta Environment, Research Management Division by Earth Sciences Division. RMD Report OF-74. 325 pp.

RESEARCH SECRETARIAT REPORTS

Research Secretariat Reports which are still available from the Research Management Division are marked with two asterisks (**). Out-of-print reports can be borrowed from the libraries listed below:

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Library, Canadian Widlife Service
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9942 - 108 Street
Edmonton, Alberta
T5K 2J5

RESEARCH SECRETARIAT REPORTS

Alberta Department of the Environment. 1976. Environmental research. Prep. for Alberta Environment, Research Secretariat. Edmonton, Alberta. 12 pp.

Baker, B.L. 1976. A report on the design of an evaluation system for rating research proposals. Prep. for Alberta Environment, Research Secretariat by University of Calgary, Kananaskis Environmental Research Centre. RS 76-6. 50 pp.

Baker, B.L., S.A. Telang, and G.W. Hodgson. 1974. Organics and water quality: The effects of forestry in the Marmot Creek Basin and of damming the Red Deer River. Interim Report No. 1. Prep. for Environment Canada, Inland Waters Directorate, and Alberta Environment, Research Secretariat by University of Calgary, Kananaskis Environmental Research Centre. (Various paging.)

Baker, B.L., S.A. Telang, and G.W. Hodgson. 1975. Organics and water quality: The effects of forestry in the Marmot Creek Basin and of damming the Red Deer River. Progress Report No. 2. Prep. for Environment Canada, Inland Waters Directorate, and Alberta Environment, Research Secretariat by University of Calgary, Kananaskis Environmental Research Centre. (Various paging.)

Baker, B.L., S.A. Telang, and G.W. Hodgson. 1975. Organic water quality studies in the Red Deer Basin: Baseline data for effects of dam construction and muskeg leaching. Prep. for Environment Canada, Inland Waters Directorate, and Alberta Environment, Research Secretariat by University of Calgary, Kananaskis Environmental Research Centre. 177 pp.

Bonnett, P.A. 1976. Environmental education project: Final report on a five month project. Prep. for Alberta Environment, Research Secretariat, and Finance and Administration. 44 pp.

** Bottenheim, J.W. and O.P. Strausz. 1978. Computer modelling on polluted atmospheres and the conversion of atmospheric sulfur dioxide to sulfuric acid. Prep. for Alberta Environment, Research Secretariat. RS Report 1978/5. 144 pp.

Butcher, G.A. 1979. Ecology and taxonomy of hybridizing cyprinid fishes from upper and lower Kananaskis reservoirs, Alberta. Prep. for Alberta Environment, Research Secretariat; and Alberta Recreation, Parks and Wildlife, Fish and Wildlife Division. Edmonton, Alberta: University of Alberta, Department of Zoology. 194 pp. M.Sc. Thesis.

Caldwell, C.J., W.L. Zwerman, and A.D. Olmsted. 1979. Perception of the Fort McMurray environment through time. Prep. for Alberta Environment, Research Secretariat by Kananaskis Centre for

Environmental Research and Department of Sociology, University of Calgary. 80 pp.

Ciazza, R. 1976. Atmospheric nutrient loading in central Alberta. Prep. for Alberta Environment, Research Secretariat, Atmospheric Environment Service, and the Cooking Lake Moraine Project. Edmonton, Alberta: University of Alberta, Department of Geography. 143 pp. M.Sc. Thesis.

Ching, H.C. 1978. Air pollution study within an urban valley. Prep. for Alberta Environment, Research Secretariat. Edmonton, Alberta: University of Alberta, Department of Geography. 106 pp. M.Sc. Thesis.

Ebel, B.J. 1979. Reclamation costs as an economic factor in the surface mining of plains coal. Prep. for Alberta Environment, Research Secretariat by University of Lethbridge, Department of Economics. 120 pp.

** Emcon Associates. 1980. Methane generation and recovery from landfills. Prep. for Consolidated Concrete Ltd. and Alberta Environment, Research Secretariat, Pollution Control Division, and Earth Sciences Division. 139 pp.

Hardy (R.M.) & Associates Ltd. 1975. Preliminary report on effects of pipeline construction on grasslands of southern Alberta. Prep. for Alberta Environment, Research Secretariat by R.M. Hardy and Associates. 30 pp.

Hardy (R.M.) & Associates Ltd. 1978. Report on sulphur dioxide impingement, soil research. Prep. for Whitecourt Environmental Study Group, and Alberta Environment, Research Secretariat by R.M. Hardy and Associates Ltd. Session Paper 109/78.

Harrison, A.W. 1980. Particulate air pollution and visibility over Calgary. Prep. for Alberta Environment, Research Secretariat. RS 77-42.

Hartland-Rowe, R. 1976. A report on aquatic biological assessment techniques used in Western Europe, and elsewhere, and their relevance to biological assessment in Alberta. Prep. for Alberta Environment, Research Secretariat. 55 pp.

Hocking, D. and D. Reiter, eds. 1973. Proceedings of a workshop on sulphur gas research in Alberta. December 1973. Jointly sponsored by Alberta Environment, Research Secretariat, and Canadian Forest Service. Information Report NOR-X-72. 196 pp.

Hocking, D. and W.R. MacDonald, eds. 1974. Workshop on reclamation of disturbed lands in Alberta: proceedings. 1974 March 27 to 28. Prep. by Alberta Environment, Research Secretariat and Environment Canada, Canadian Forestry Service. Information Report NOR-X-116. 216 pp.

Hage, K. 1979. Air pollution study of the North Saskatchewan River Valley in Edmonton, Alberta. Prep. for Alberta Environment, Research Secretariat. RS 77-6.

Hay, J.E. 1977. A tabulation and analysis of solar radiation data for Alberta. Prep. for Alberta Environment, Research Secretariat by Alberta Research Council. Research Council of Alberta Information Series 79. 124 pp.

Kennedy, L.W. 1976. The human environment system. Prep. for Alberta Environment, Research Secretariat. 52 pp.

Kessick, M.A. 1978. Clay tailings from Alberta oil sands and other sources: A review. Prep. for Alberta Environment, Research Secretariat by Alberta Research Council. RS 78-2.

Klemm, R.F. 1977. Sulfur in precipitation: contribution to an Alberta sulfur inventory. Prep. for Alberta Environment, Research Secretariat by Alberta Research Council. 126 pp.

** Krawetz, N.M. 1979. Hazardous waste management: a review of social concerns and aspects of public involvement. Prep. for Alberta Environment, Research Secretariat. Staff Report 4. 35 pp.

Krawetz, N.M. 1979. Socio-economic impact analysis: An Alberta perspective. Prep. for Alberta Environment, Research Secretariat. Presented at the Air Pollution Control Association and Canadian Government Affairs Seminar, 2nd, 1979 September 23 to 26. Ottawa. 7 pp.

Kristensen, J. 1978. Investigations of goldeye and other fish species in the Wood Buffalo National Park section of the Peace-Athabasca delta, 1977: draft. Prep. for Peace-Athabasca Delta Monitoring Committee, Alberta Environment, Research Secretariat, and Alberta Recreation, Parks and Wildlife, Fish and Wildlife Division by LGL Limited. 108 pp.

** Kristensen, J. 1979. Walleye studies in the Peace-Athabasca delta, 1978. Prep. for Peace-Athabasca Delta Project Monitoring Committee, Fisheries Subcommittee by LGL Limited. Edmonton, Alberta: Alberta Environment, Research Secretariat. 54 pp.

** Krouse, H.R. 1978. Sulphur isotope abundances in the environments surrounding the Teepee Creek gas processing plant, Peace River region, Alberta. Prep. for Alberta Environment, Research Secretariat by the University of Calgary Interdisciplinary Sulphur Research Group. RS 78-13.

Leahey, D.M. 1979. A preliminary study into the relationships between thermal radiation and plume rise. Prep. for Alberta Environment, Research Secretariat. 33 pp.

Leech, R.E. and H.S. Sandhu, compilers. 1976. Specialists involved in environmental research and similar activities in Alberta. Prep. for Alberta Environment, Research Secretariat. (Unpaginated).

Legge, A.H. et al. 1975. Field studies of pine, spruce, and aspen periodically subjected to sulfur gas emissions: Final report. Prep. for Whitecourt Environmental Study Group, Alberta Environment, Research Secretariat, Oil Sands Environmental Study Group, and University Interdisciplinary Sulfur Research Group by University of Calgary, Kananaskis Environmental Sciences Centre. 41 pp.

Legge, A.H. et al. 1976. Quantitative assessment of the impact of sulfur gas emissions on a forest ecosystem. Prep. for Whitecourt Environmental Study Group and Alberta Environment, Research Secretariat by University of Calgary, Kananaskis Environmental Research Centre. 164 pp.

Legge, A.H. et al. 1978. Sulphur gas emissions in the boreal forest: the West Whitecourt case study: final report. Prep. for Whitecourt Environmental Study Group and Alberta Environment, Research Secretariat by University of Calgary, Kananaskis Environmental Research Centre. 615 pp.

Legge, A.H. 1980. The oxides of nitrogen and their interactions in the environment: A review. Prep. for Alberta Environment, Research Secretariat. 169 pp.

Lombard North Group. 1975. Experimental feeding of rainbow trout with freshwater shrimp. Prep. for Alberta Department of Agriculture and Alberta Environment, Research Secretariat by Lombard North Group. Edmonton, Alberta. (Various paging.)

** Longley, R.W. 1977. Climatic change as it affects Alberta and the other prairie provinces. Prep. for Alberta Environment, Research Secretariat. 33 pp.

MacDonald, W.R. and H.S Sandhu, eds. 1975. Proceedings of Alberta sulphur gas research workshop II, Kananaskis, Alberta, January 16 to 17, 1975. Jointly sponsored by Alberta Environment, Research Secretariat and University of Calgary, Kananaskis Environmental Research Centre. 174 pp.

James F. MacLaren Ltd. 1979. A proposed human system concept for the Research Secretariat. Prep. for Albert Environment, Research Secretariat by James F. MacLaren Ltd. Edmonton, Alberta. 18 pp.

McKinnon, Allan and Associates. 1975. Effects of Shell Waterton Gas Plant on soils, waters and rainfall. Prep. for Alberta Environment, Research Secretariat by McKinnon, Allan and Associates. 17 pp.

** Martz, L.W. 1978. The sediment yield of Spring Creek watershed. Prep. for Alberta Environment, Research Secretariat by Department of Geography, University of Alberta. RS Report 1978/3. 101 pp.

Mathews, T. and R.B. Hicks. 1977?. A study of the stability of the atmospheric boundary layer as revealed by an acoustic sounder and its relation to pollution levels in Calgary. Prep. for Alberta Environment, Research Secretariat by University of Calgary, Department of Physics. 87 pp.

Moell, C.E. 1978. Determination of liquid and gaseous degradation products produced from solid waste sanitary landfill sites. Prep. for Alberta Environment, Research Secretariat and Earth Sciences Division. 51 pp.

** Munson, B.A. 1979. Mercury and goldeye in the North Saskatchewan River. (The biology of goldeye, Hiodon alosioides, in the North Saskatchewan kiver with special reference to mercury contamination in this species of fish.) Prep. for Alberta Environment, Research Secretariat. Edmonton, Alberta: The University of Alberta. 123 pp. M.Sc. Thesis. RS Report 1978/1.

Munson, B.A. and E.E. Daniel. 1975. The North Saskatchewan River mercury project, 1972 to 1973. Prep. for Alberta Environment, Research Secretariat. 43 pp.

National Engineering Design and Planning and Computation Company. 1973. Some methods for treating tar sands tailings. Part I: laboratory application of CO_2 process and related testing; type "X" treatment. Prep. for Alberta Environment, Research Secretariat by NEDAPAC. 47 pp.

National Engineering Design and Planning and Computation Company. 1973. Some methods for testing tar sands tailings. Part II: theory of CO_2 process. Prep. for Alberta Environment, Research Secretariat by Nedapac. 41 pp.

Nielsen, W. and D. Gill. 1976. The potential for wilderness recreation in a sand dune environment in northeast Alberta. Part I: Preliminary environmental directory. Prep. for Alberta Environment, Research Secretariat by University of Alberta, Department of Geography. 75 pp.

Nielsen, W. 1978. The potential wilderness recreation in a sand dune environment in northeast Alberta. Funded in part by Alberta Environment, Research Secretariat. Edmonton, Alberta: University of Alberta. 210 pp. M.Sc. Thesis.

Nyborg, M., R.L. Halstead, A.A. Loman, and H.S. Sandhu. 1979?. Background and recommendations for environmental sulfur research in Alberta. Prep. for Alberta Environment, Research Secretariat. 7 pp.

Paterson, R.D. 1978. A micrometeorological study of an urban valley. Prep. for Alberta Environment, Research Secretariat. Edmonton, Alberta: University of Alberta, Department of Geography. 91 pp. M.Sc. Thesis.

Reimchen, T.H.F. 1977. Surficial geology and erosion potential, Rocky Mountains and the foothills of Alberta. Prep. for Alberta Environment, Research Secretariat and Alberta Research Council by Bayrock and Reimchen Surficial Geology Ltd. 177 pp.

Rothwell, Richard L. 1979. Erosion control of stream/road crossings, Hinton, Edson, Alberta. 1974-75. Prep. for Alberta Environment, Research Secretariat. RS Report 1979-1. 126 pp.

Sadasiviain, R.S., D.G. Walker, and J. Weijer. 1979. The utilization and genetic improvement of native grasses from the Alberta Rocky Mountains. Prep. for Alberta Environment, Research Secretariat, Alberta Recreation, Parks and Wildlife, Fish and Wildlife Division, and Alberta Energy and Natural Resources, by University of Alberta, Department of Genetics. 154 pp.

Sandhu, H.S. 1976. Oxidant levels in Alberta airsheds. Prep. for Alberta Environment, Research Secretariat. Presented at the International Conference on Photochemical Oxidant Pollution and Its Control, Releigh, N.C., September 12 to 17, 1976. 8 pp.

** Sandhu, H.S. and M. Nyborg, eds. 1977. Proceedings of Alberta sulphur gas workshop III, November 17 to 18, 1977. Jointly sponsored by Alberta Environment, Research Secretariat and Alberta Institute of Pedology. 335 pp.

** Sandhu, H.S. and M. Nyborg, eds. 1978. Proceedings of Alberta sulphur gas workshop III: Technical summary and list of participants. November 17 to 18, 1977. Jointly sponsored by Alberta Environment, Research Secretariat. Jointly sponsored by Research Secretariat and Alberta Institute of Pedology. 20 pp.

** Sandhu, H.S., ed. 1979. Industrial sulphur emissions for Alberta, 1974-1978. Prep. for Alberta Environment, Research Secretariat. 21 pp.

Schiechtl, H. 1980. Bioengineering for land reclamation and conservation translated by M. Kuttler-Knupp. Prep. for Alberta Environment, Research Secretariat. 404 pp.

Stolte, W.J. and G.R. Dumontier. 1977. Flood frequency analysis for mountainous and prairie streams. Prep. for Alberta Environment, Technical Services Division and Research Secretariat. 81 pp.

Telang, S.A. et al. 1976. Water quality and forest management: the effects of clearcutting on organic compounds in surface waters of the Marmot Creek Drainage Basin. Prep. for Canada, Department of the Environment, Inland Waters Directorate, and Alberta Environment, Research Secretariat by University of Calgary, Kananaskis Environmental Research Centre. 223 pp.

Walker, D., R.S. Sadasiviah, and J. Weijer. 1976. The utilization and genetic improvement of native Alberta grasses from the eastern slopes of the Rocky Mountains. Prep. for Alberta Environment, Research Secretariat, Dept. of Recreation, Parks and Wildlife, Fish and Wildlife Division, Energy and Natural Resources, Forest Development Research Trust Fund, and Parks Canada by University of Alberta.

Western Research and Development Ltd. 1977. Environmental protection and energy conservation for Alberta industry. Prep. for Alberta Environment, Research Secretariat. RS 76-8.

Western Research and Development Ltd. 1977. A preliminary study of the effects of the chinook on the air pollutant levels in Calgary. Prep. for Alberta Environment, Research Secretariat by Western Research and Development Ltd. Calgary, Alberta. 46 pp.

Wighton, D. and P. Bonnett, compilers. 1972. Environmental education: A teachers' aid to environmental education. Prep. for Alberta Environment, Research Secretariat. Edmonton: Interdisciplinary Committee for Environmental Quality. (Various paging.)

Yamamoto, T. 1975. Preliminary analysis of enteric virus content of wastewaters in selected communities in the Northwest Territories and Alberta. Prep. for Environment Canada, Water Pollution Control Directorate, and Alberta Environment, Research Secretariat by University of Alberta, Department of Microbiology. 150 pp.

ALSO AVAILABLE FROM RESEARCH MANAGEMENT DIVISION

The following publications can also be obtained free of charge from the Research Management Division.

Alberta. Department of Environment. Research Secretariat. 1975. Proceedings of a conference on the environmental effects of oil and salt water spills on land. Sponsored by Alberta Environment, Research Secretariat and the University of Calgary. 1975 November 06 to 07; Banff, Alberta. 327 pp.

Alberta. Department of Environment. 1982. Symposium/Workshop proceedings: acid forming emissions in Alberta and their ecological effects. Sponsored by Alberta Environment, Canadian Petroleum Association, and the Oil Sands Environmental Study Group. 1982 March 09 to 12; Edmonton, Alberta. 648 pp.

Clarke, Thomas E. 1981. R & D management bibliography, 3rd ed. Vancouver: Stargate Consultants Ltd. 314 pp.

Technical Committee for the Long Range Transport of Atmospheric Pollutants in Western Canada. 1981. Western Canada LRTAP activities: annual report 1981. 20 pp.

Technical Committee for the Long Range Transport of Atmospheric Pollutants in Western Canada. 1982. Western Canada LRTAP activities: annual report 1982. 27 pp.

Technical Committee for the Long Range Transport of Atmospheric Pollutants in Western Canada. 1983. Western Canada LRTAP activities: annual report 1983. 39 pp.